

February 14, 1952

Dr. Freeman A. Weiss  
American Type Culture Collection  
2029 M Street, NW  
Washington 6, D.C.

Dear Dr. Weiss:

Please forgive my long delay in replying to your letter of the 23d January. I experienced a number of irrelevant harassments in recovering and confirming the cultures to send you. They are now, and should remain, in good condition.

I am enclosing tubes of the "Lisbonne-Carrère" lysogenic strain of *E. coli*, together with an indicator strain, a rough Shiga. These were received from Paris. There is a considerable literature, German and French, on this system; more recently Dr. G. Berta~~an~~, in Luria's laboratory at the University of Illinois, has been working with it: (*J. Bact.* 62: 293, 1951). There are any number of lysogenic *E. coli*. I hope that this one will meet your and Dr. Wyckoff's requirements.

Lysogenic bacteria offer no special problems of preservation.

I am most pleased to hear that you are planning a concerted study of preservation by silica gel and the like. I have been a little disappointed in the long-term success of my primitive efforts, but I am fully confident that this is a matter of detail, and that we should at any event be thinking of learning more about the biology of preservation. The two most likely improvements, in my opinion, would be in the direction of a colloidal suspending fluid in place of peptone, and possibly of drying the bacteria onto glass beads or filter paper placed immediately over the silica desiccant. I enclose a little informal circular that about summarizes my present views on the subject. As you can see, I have been anxious to propagandize the matter in susceptible quarters, but so far as I know you will have no "competitors" in a rational investigation.

Yours sincerely,

Joshua Lederberg  
Associate Professor of Genetics

P.S. Please let me know if the tubes are broken, or the bacteria fail to grow out. So far, I have excellent success with the mails, probably owing to the mechanical strength of tubes sealed in this way.

JL